

WELL NAME : MUDGE LS 16
REPORT ON : ACIDIZATION AND STEP RATE TESTS

DETAILED PROCEDURE:

- 7/16/88 1. MIRUSU. BLOW WELL DOWN. KILL WITH FRESH WATER. NDWH. NUBOP. TAG PBD. TOOH W/TBG. PU AND RIH W/ 5 1/2" FULL BORE PACKER AND TBG. SET PACKER @ 6947'. LOAD BACKSIDE AND PT TO 600 PSI. HELD OK. ESTABLISHED A RATE INTO FORMATION 2 1/2 BPM @ 1200 PSI.
- 7/17/88 2. SQUEEZED DAKOTA FORMATION W/ 115 CU FT CLASS G CEMENT W/ CACL. GOT SQ TO 2500# W/ 86 CU FT IN FORMATION. REVERSED OUT TBG. PU 5 STDS AND RESET PACKER. REPRESSURED SQUEEZE TO 1500 PSI.
- 7/19/88 3. RELEASE PKR. POOH W/TBG AND PKR. LD PKR. RIH W/ 2 3/8" TBG. BIT SUB. AND 4 3/4" BIT. TAGGED CMT @ 6947'. BROKE CIRCULATION. DRILL 223' CMT TO 7170'. CIRC HOLE CLEAN. PULLED UP 3 STANDS.
- 7/20/88 4. BROKE CIRCULATION. DRILLED CMT. CIRC HOLE CLEAN. POOH W/ TBG AND BIT. RIH W/ TBG AND 5 1/2" PKR. ISOLATED CSG LEAK @ 4227'. EST RATE @ 1 1/4 BPM @ 1250 PSI. BOTTOM HELD GOOD.
5. SET PKR @ 3746'. SQUEEZED HOLE W/ 86 CU FT CLASS G NEAT CMT. MAX SQUEEZE PRESSURE - 1000#. GOT SQUEEZE W/ 78 CU FT CMT BEHIND CSG. CIRC HOLE CLEAN. PU 5 STANDS. RESET PKR. REPRESSURED TO 5000#.
- 7/21/88 6. RELEASE PACKER. POOH W/TBG AND PKR. LAYED PACKER DOWN. RIH W/TBG AND 4 3/4" BIT. TAG CEMENT. DRILLED SAME. PT TO 600 PSI. HELD OK. RIH TO DAKOTA SQUEEZE @ 7200'. DRILL CEMENT TO 7355'. PT TO 600 PSI. HELD OK. CLEANED OUT PBD 7438'. HAD 30' OF SAND FILL. CIRCULATED HOLE CLEAN. POOH W/TBG AND BIT.
- 7/22/88 7. RIH W/TBG AND 4 3/4" BIT. DRILL OUT TO NEW PBD 7576'. CIRC HOLE CLEAN. POOH W/BIT. RU WIRELINE. RUN GR/CCL FROM 7576' TO 7000'. PERFORATE MORRISON W/ 3 1/8" CSG GUN PREMIUM CHARGE @ 2 JSPF. 7428' - 7570'. TOTAL 103', 206 HOLES. RIH W/TBG AND 5 1/2" PKR.
- 7/23/88 8. SET PKR. BREAKDOWN FORMATION @ 2750#. ESTABLISHED RATE @ 3 BPM @ 2800#. ACIDIZED W/ 2000 GAL OF 15% WEIGHTED HCL. AND 200 BALL SEALERS. LITTLE OR NO BALL ACTION. ACID AWAY @ 5 BPM. 3400 PSI. ISIP = 2500#. FLOWBACK WELL.
9. STARTED TO STEP RATE TEST: PUMP EACH RATE FOR 30 MIN. 1/8 BPM @ 2180#: 1/4 BPM @ 2090#: 1/2 BPM @ 2280#: 3/4 BPM @ 2440#: 1 BPM @ 2520#: 1 1/2 BPM @ 2620#. FLOWED BACK TO TANK. WELL STILL FLOWING AFTER 6 HRS.
- 7/24/88 10. WELL HAD 200# OF TP. BLEW WELL DN. RELEASED PKR. POOH W/TBG AND PKR. RIH W/TBG AND SN 1 JT UP. LANDED @ 7411'. NDBOP. NUWH. RDMOSU.